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Nebraska Farm Real Estate Market Developments 1989-90

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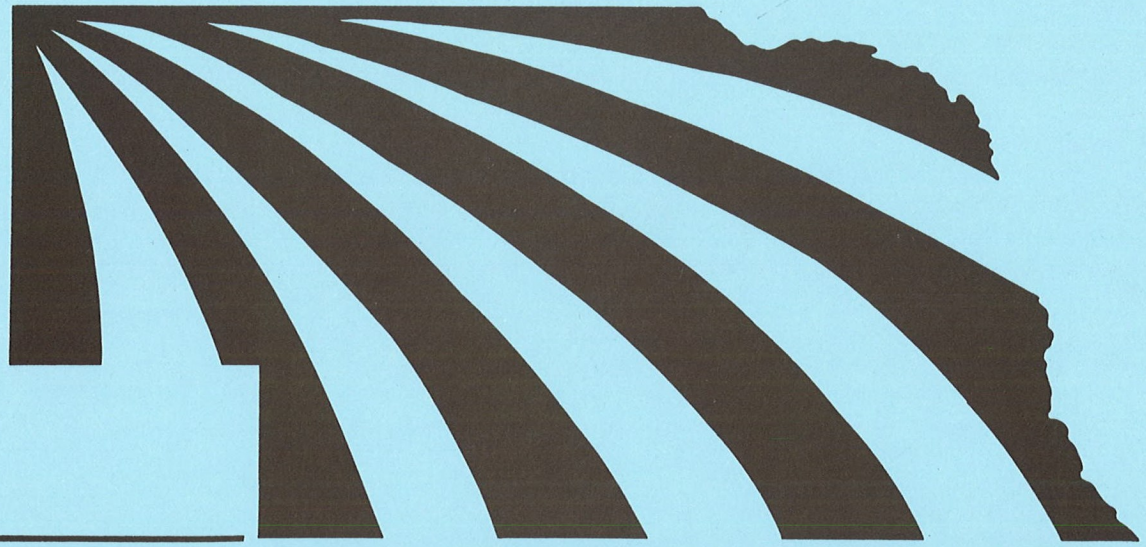

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by

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and Timothy Schroeder

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University of Nebraska-Lincoln
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The authors express their appreciation to the survey reporters for their participation in the annual Nebraska Farm Real Estate Market Survey. Without their input, much of the information within this report would not exist.

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Summary

In Nebraska, 1989 was another year of active market activity and increasing agricultural land values. These were two of the findings evident from the 1990 Nebraska Farm Real Estate Market Survey reports. The 1990 survey revealed a smaller average rate of increase of 9 percent during the 12-month period ending February 1, 1990 than reported for the year earlier. This smaller increase is a reflection of previous increases in farmland values and some decrease in net farm income during 1989.

The crop reporting districts showing the highest average land value change for the 12-month period were the North and Central Districts with 18 and 17 percent respectively. These increases were fueled by large gains in grazing land values, with cropland values also showing relatively large gains.

The greatest portion of buyers again were active farmers, frequently looking to expand existing farm operations. These newly purchased parcels were often within 5 miles of the buyers' residences, implying very geographically-localized markets. The primary reasons for selling farmland in 1989 were estate settlement and retirement/health.

Of the actual transactions during 1989 observed by survey reporters, 42 percent were cash sales involving no debt. The incidence of cash sales has decreased gradually over the past 3 years. Mortgage financing has increased slightly in recent years to 47 percent of the transactions reported in 1989.

For 1990, reported cash rental rates on cropland either remained relatively stable or were slightly higher than 1989 levels. But the 1990 pasture rents experienced most dramatic increases, especially on an AUM (animal-unit-month) basis. The combination of reduced forage production from dry weather and profitable livestock prices has been the force behind these increases in pasture rents.

Rates of return to farmland given by reporters is an estimate of the net rate of return that land owners in their area could expect at present real estate values. The percentage rates found for each type of land varies, but for 1990 the estimated rates of return on irrigated land, dryland cropland, and grassland were relatively consistent across regions. Irrigated land showed the highest rate at 7 percent with dryland cropland and grassland following at 6 and 5 percent respectively. These estimated rates of return for 1990 tended to be slightly lower than those of 1989.

The expected rate of return from farmland is very especially important when looking to purchase land with borrowed capital. One fundamental principle for a sound financial management program is to use debt capital only when the rate of return for the asset matches or exceeds the rate of interest on borrowed capital. Judging from the averages reported in the survey, farmland currently will not generate rates of return adequate to justify heavily debt-leveraged acquisitions. Even when the buyer is willing to forgo returns on his/her own equity, the debt servicing potential is still constrained.

As for future outlook, most survey reporters expected 1990 market activity to be similar to or slightly greater than in 1989. Farm real estate conditions seem to dictate stable to slightly increased values for 1990, with the weather being the main determinant of the outcome.

INTRODUCTION

Each year the Department of Agricultural Economics, University of Nebraska-Lincoln conducts a state-wide survey of farm real estate market conditions. The February 1, 1990 effort was the 13th annual survey of agricultural land values and market conditions and trends by substate area. Nearly 200 reporters provided information regarding market characteristics in their localities. These individuals are closely affiliated with the agricultural land markets and represent a solid base of expertise.

In addition to this statewide survey, other sources of information are also used for monitoring and analyzing market conditions. Data series compiled by the U.S. Department of Agriculture and the U.S. Department of Commerce are included in this report to provide a more comprehensive picture of Nebraska's farm real estate situation. A statistical appendix is included for easy reference to several long-term data series.

The information herein provides an overview of general conditions and trends of agricultural land markets across the state. It may or may not accurately reflect actual market conditions unique to certain localities and/or properties. We caution the reader to use this information accordingly -- gaining a general reference point from it, while relying on other sources for more specific detail.

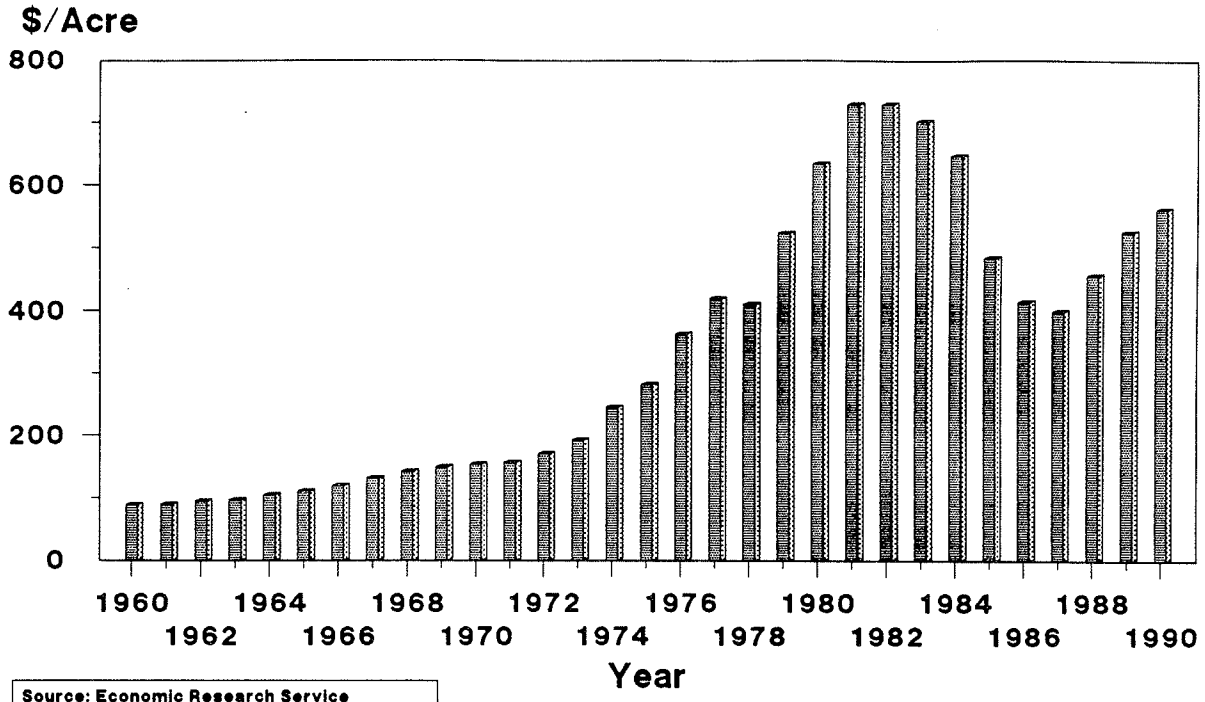
HISTORICAL TRENDS IN FARMLAND VALUES

As can be seen from **Figure 1**, Nebraska's agricultural land values exhibit a "roller coaster" pattern. The past decades of annual averages as maintained by the U.S. Department Of Agriculture reflect periods of both boom and bust. Even when this series is adjusted for general rates of inflation and expressed in real dollars (constant dollars with a 1977 basis)the volatility of values over time remains extreme **(Figure 2 and Appendix Table 2)**.

Two implications can be drawn from this multi-decade perspective. First, it is clearly evident that agricultural real estate is not a constantly appreciating asset. Quite the contrary, in Nebraska values plunged from euphoric highs of the early 1980s to levels that, by 1987, were comparable to those of a decade earlier in current dollars and two decades earlier in constant dollars. Secondly, the cumulative increases in agricultural land values of the past few years, while sizable in percentage terms, still reflect only partial recovery from the previous value losses. Particularly when expressed in constant dollars,

Figure 1. NE Farmland Values, USDA Series

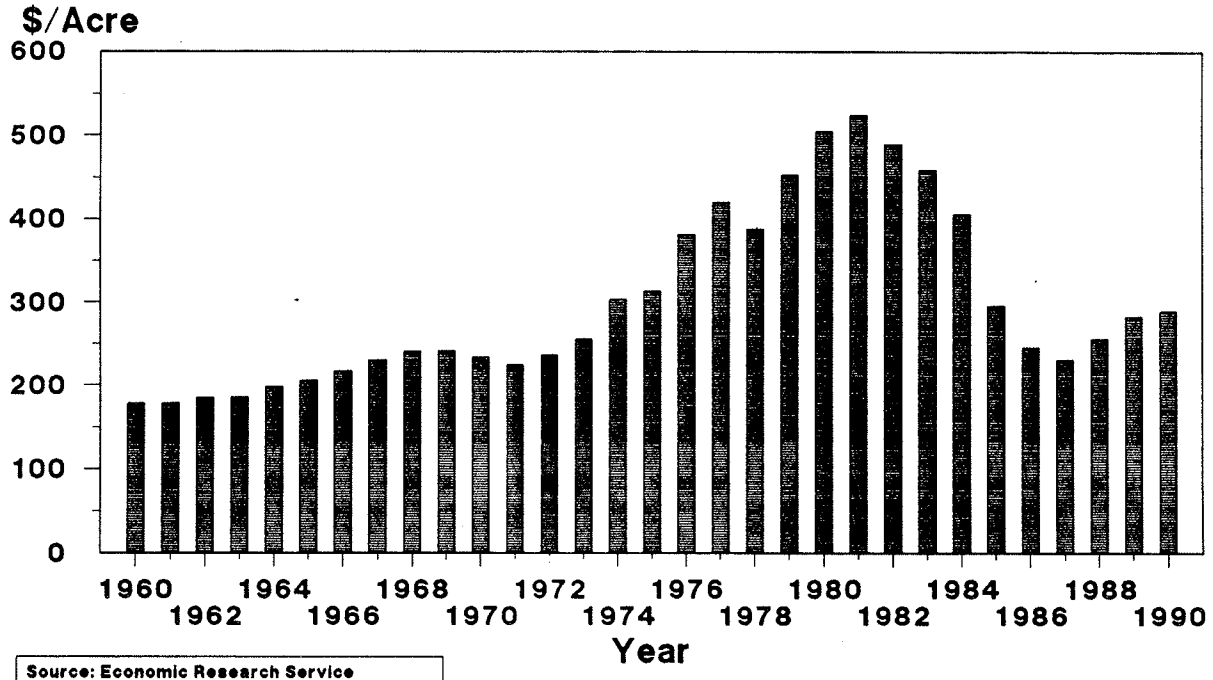
Average Value per Acre, 1960 - 1990



Source: Economic Research Service
United States Department of Agriculture

Figure 2. NE Farmland Values, USDA Series

Constant (1977) Dollars



Source: Economic Research Service
United States Department of Agriculture

which are reflective of purchasing power, Nebraska's agricultural real estate assets at the beginning of 1990 were still about half of earlier peak (1981) values and basically comparable to real dollar levels of the early 1970s.

VALUE CHANGES DURING 1989

The year 1989 was the third consecutive year of gains in agricultural land values in Nebraska. As of February 1, 1990, the all-land average value was $473 per acre **(Figure 3)**. The level represented a 9 percent increase over 12 months earlier. This rate of increase recorded by the UNL survey was a somewhat slower pace than those in 1987 and 1988 when the all-land average gains were 13 percent and 25 percent respectively. When adjusting for inflation the 1989 increase measured by the UNL series was less than 5 percent and left the real value of Nebraska farmland in 1990 at just 44 percent of the inflation-adjusted high of $553 per acre in 1980 **(Figure 4)**.

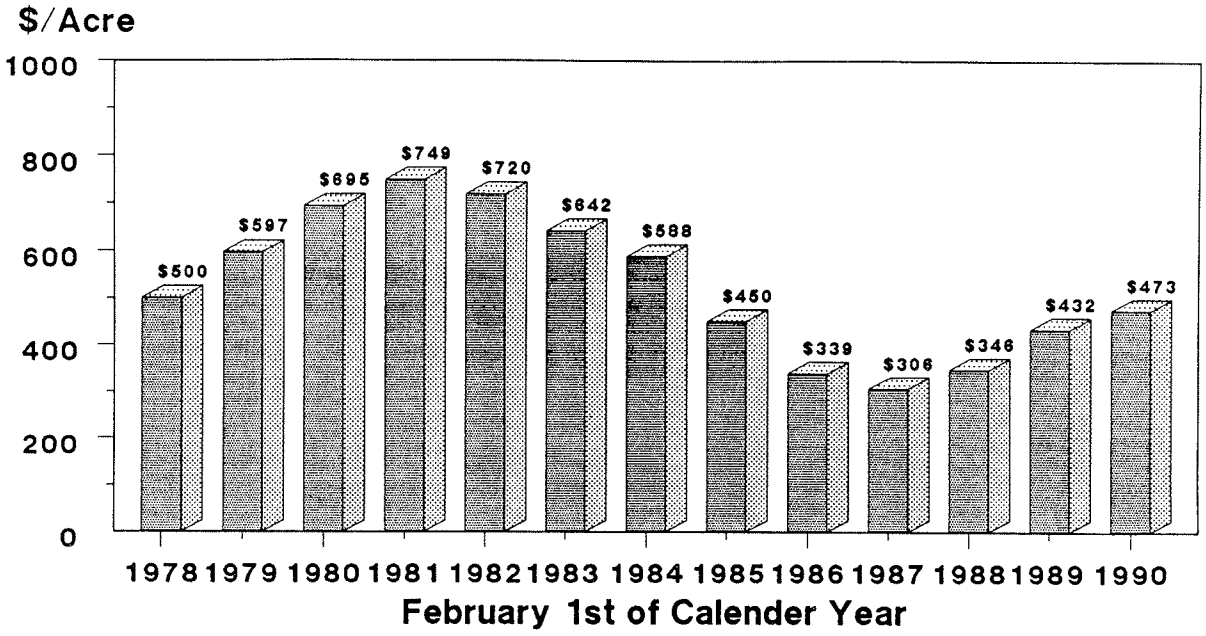
Results from the UNL survey are consistent with those of other real estate monitoring systems as well. The **USDA** reported an average value change in Nebraska of 7 percent for the 11-month period of February 1, 1989 to January 1, 1990 **(Appendix Figure 1)**. A survey of area bankers by the Federal Reserve Bank of Kansas City found Nebraska farmland values gaining 10 percent during 1989. Since each of these surveys are unique and conducted independently, they provide a valuable check of the validity of the UNL state series and the substate detail which it provides.

Despite drought conditions in many areas of the state, much of Nebraska's agricultural sector experienced another strong year of income in 1989. Four successive years of favorable income levels have done much to heal the financial wounds of the mid-1980s and promote economic recovery. Agricultural debt continued to shrink from previously burdensome, levels; at present, the sector's debt is about two-thirds the level of the peak. Consequently, the agricultural land market has been on the rebound. However, the pattern of change has shown considerable variation by type of land and region of the state.

VALUE CHANGES BY TYPE OF LAND AND REGION

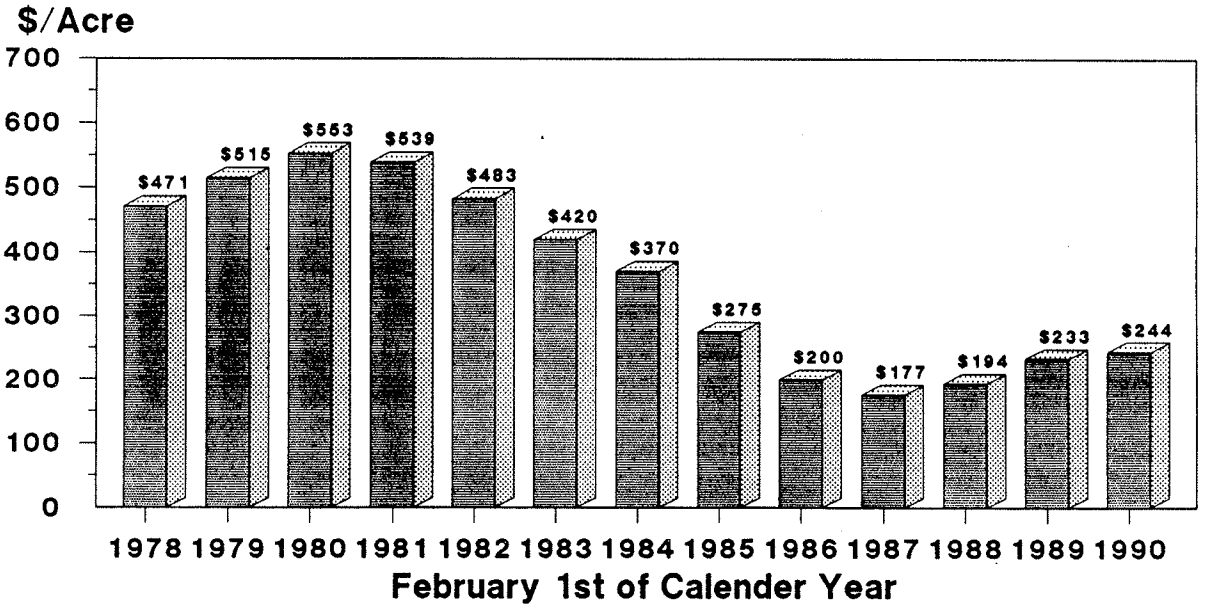
For the year ending February 1, 1990, the strongest percentage gains were recorded by the grazing land classes, a reflection of a favorable livestock market for cattlemen **(Figure 6 and Table 1)**. This was particularly evident in the primary rangeland areas of The Northern and Central Crop Reporting Districts where such land rose more than 20 percent during the 12-month period. Combined with percentage gains of more than 40 percent for nontillable grazing land in these two areas during 1988, it would seem that this land grouping has basically recouped earlier losses. However, this is not the case since grazing land had previously experienced some of the greatest percentage devaluations of any land type in the state. Consequently, 1990 levels for nontillable

Figure 3. Nebraska Farmland Values
UN-L Series, 1978 - 1990
Average Value per Acre



Source: Nebraska Farm Real Estate Market Survey Series, IANR, UN-L

Figure 4. Nebraska Farmland Values
UN-L Series, 1978 - 1990
Constant (1977) Dollars



Source: Nebraska Farm Real Estate Market Survey Series, IANR, UN-L

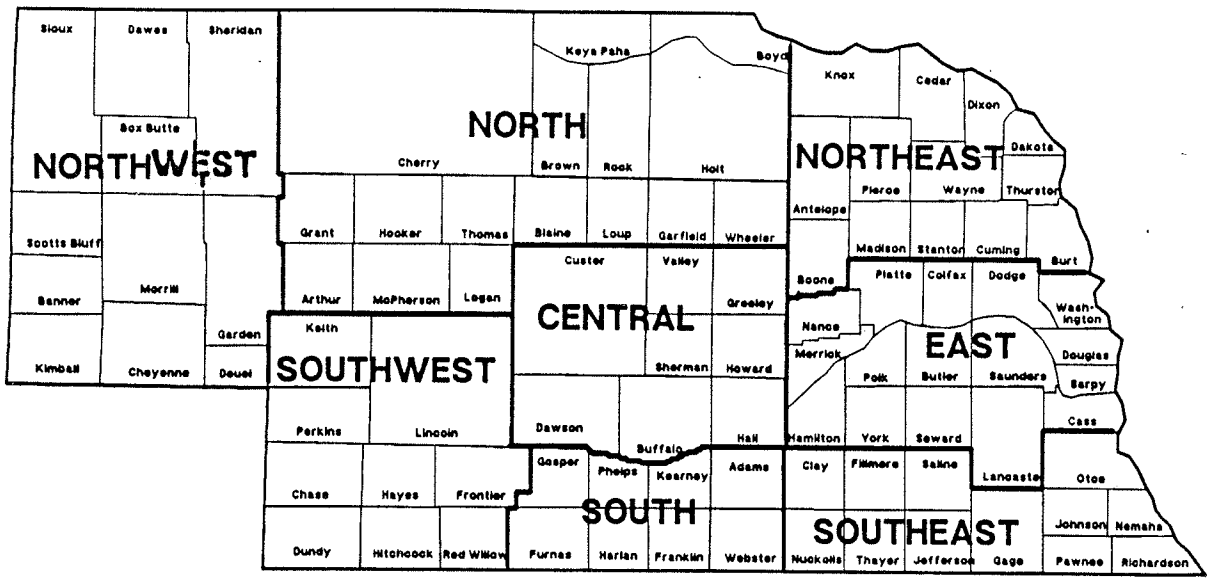


Figure 5. Nebraska Crop Reporting Districts.

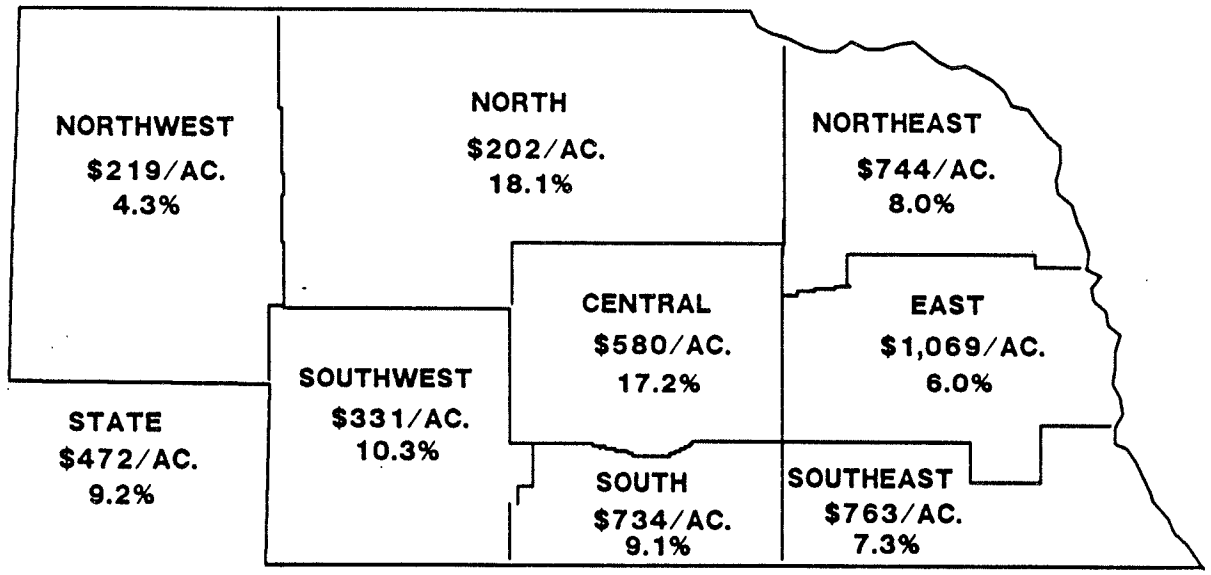


Figure 6. Average Value of Nebraska Farmland, February 1, 1990 and Percent Change From A Year Ago.

Table 1. Average Reported Value Of Nebraska Farmland For Different Types Of Land By Crop Reporting District, Feb. 1, 1989 And Feb. 1, 1990.[a/]

Type of Land & Year	Crop Reporting District								
	North-west	North	North-east	Central	East	South-west	South	South-east	STATE[c/]
	Dollars Per Acre								
Dryland Cropland (No Irrigation Potential)									
Rptd. in 1990...	309	279	728	409	877	409	491	662	532
Rptd. in 1989...	305	250	688	370	824	371	491	621	500
% Change.....	1.3	11.6	5.8	10.0	6.4	10.2	0.0	6.6	6.4
Dryland Cropland (Irrigation Potential)									
Rptd. in 1990...	371	367	840	539	1,056	473	706	816	720
Rptd. in 1989...	376	339	773	483	980	433	684	772	674
% Change.....	-1.3	8.3	8.7	11.6	7.8	9.2	3.2	5.7	6.8
Grazing Land (Tillable)									
Rptd. in 1990...	102	185	381	270	459	153	296	360	197
Rptd. in 1989...	104	150	362	217	418	130	253	341	173
% Change.....	-1.9	23.3	5.3	24.4	9.8	17.7	17.0	5.6	13.9
Grazing Land (Nontillable)									
Rptd. in 1990...	83	134	272	225	340	113	233	298	146
Rptd. in 1989...	71	109	242	183	310	101	209	266	123
% Change.....	16.9	22.9	12.4	23.0	9.7	11.9	11.5	12.0	18.7
Hayland									
Rptd. in 1990...	217	218	326	328	405	245	278	328	243
Rptd. in 1988...	194	183	295	275	382	220	268	291	210
% Change.....	11.9	19.1	10.5	19.3	6.0	11.4	3.7	12.7	15.7
Gravity Irrigated Cropland									
Rptd. in 1990...	841	900	1,186	1,413	1,513	895	1,390	1,285	1,287
Rptd. in 1989...	815	900	1,100	1,210	1,462	841	1,232	1,170	1,182
% Change.....	3.2	0.0	7.8	16.8	3.5	6.4	12.8	9.8	8.9
Center Pivot Irrigated Cropland[b/]									
Rptd. in 1990...	619	710	1,090	910	1,393	765	1,117	1,133	935
Rptd. in 1989...	532	604	993	779	1,320	683	1,021	1,056	841
% Change.....	16.3	17.6	9.8	16.8	5.5	12.0	9.4	7.3	11.2
All Land Average[c/]									
Rptd. in 1990...	219	202	744	580	1,069	331	734	763	473
Rptd. in 1989...	210	171	689	495	1,009	300	673	711	432
% Change	4.3	18.1	8.0	17.2	6.0	10.3	9.1	7.3	9.2

[a/] Source: 1989 and 1990 Nebraska Farm Real Estate Market Surveys.
[b/] Value of pivot not included in per acre value.
[c/] Weighted averages.

rangeland, even with large percentage gains over the past two years, are still only 73 percent and 66 percent of their previous value in the North and Central Districts respectively (**Appendix Table 4**).

Generally, percentage increases of irrigated cropland values outpaced dryland cropland changes throughout most of the state during 1989. Moisture deficit periods such as those occurring during 1989 will, to varying degrees, put a premium on irrigated cropland. However, in the Eastern District, where some of the most expensive irrigated land is located, the rates of appreciation were relatively modest during 1989.

By region, the North and Central Crop Reporting Districts showed the highest all-land average change for the 12-month period of 18 and 17 percent respectively. These increases were fueled primarily by the large gains in grazing land values; but cropland values in these areas also posted relatively large percentage gains. The Northwest (Panhandle) District represented a contrast, where the all-land average value rose only 4 percent for the 12-month period ending February 1, 1990. Drought conditions have been pervasive across much of this area. In addition, the questionable water delivery volumes from public irrigation projects in the area may have contributed to relatively small gains in land values. Likewise, moderate all-land value gains in the East and Southeast Districts were probably throttled somewhat by drought conditions.

UNL survey reporters are also asked to estimate current values for both high grade and low grade land for each land type. On the basis of these estimates, a range of current average values is established **(Table 2)**. Generally, the 1990 reported values for both high grade and low grade land are up from a year earlier. And the range of values across the quality spectrum is similar to that of recent years. High grade land in most areas will usually be valued 12 to 25 percent higher than the typical average-quality land. Low grade land may have a variety of specific limitations which results in it often being valued 20 to 30 percent below that which is more typical for the area. In total, the spread in per acre value across the quality spectrum in any given market area can often be more than 50 percent.

As district averages are analyzed, one must remember that these too represent a diverse universe. Since each crop reporting district includes no less than eight counties, the variation of soils, climate, productivity, etc. can be extreme within a district. Evidence of this variation is provided in **Appendix Figure 2** which is average value per acre by county as reported by farm operators in the 1987 CENSUS OF AGRICULTURE. In several districts, the high-county average is more than 100 percent above the low-county average. For example, in the Central District the 1987 average value in Custer County was $265 per acre, while Hall County, reflecting more intensive irrigated agriculture, averaged $911 per acre. As a consequence, substate regional data series such as the UNL land value series should be used more as trend indicators for the area rather than as measures of actual value.

Table 2. Average Reported Value Per Acre Of Nebraska Farmland For Different Types And Grades Of Land By Crop Reporting District, Feb. 1, 1990[a/]

Type of Land & Quality	Crop Reporting District							
	Northwest	North	Northeast	Central	East	Southwest	South	Southeast
	Dollars Per Acre							
Dryland Cropland (No Irrigation Potential)								
Average.....	309	279	728	407	877	409	491	622
High Grade.....	355	340	865	510	1,035	475	550	780
Low Grade.....	230	230	505	325	625	305	355	455
Dryland Cropland (Irrigation Potential)								
Average.....	371	367	840	539	1,056	473	706	816
High Grade.....	435	455	1,060	680	1,210	555	790	920
Low Grade.....	325	300	725	440	785	365	515	610
Grazing Land (Tillable)								
Average.....	102	185	381	270	459	153	296	360
High Grade.....	85	155	290	235	375	125	230	300
Low Grade.....	85	125	250	180	330	90	200	270
Grazing Land (Nontillable)								
Average.....	83	134	272	225	340	113	233	298
High Grade.....	90	170	335	270	415	140	250	345
Low Grade.....	65	105	205	175	275	90	165	220
Hayland								
Average.....	217	218	326	328	405	245	278	328
High Grade.....	295	295	380	395	515	295	300	360
Low Grade.....	130	150	225	210	310	170	215	200
Gravity Irrigated Cropland								
Average.....	841	900	1,186	1,413	1,513	895	1,390	1,285
High Grade.....	885	1,080	1,335	1,610	1,641	1,040	1,565	1,340
Low Grade.....	520	630	940	895	1,095	625	880	860
Center Pivot Irrigated Cropland								
Average.....	619	710	1,090	910	1,393	765	1,117	1,133
High Grade.....	600	885	1,265	1,145	1,535	875	1,300	1,320
Low Grade.....	390	530	910	725	1,020	580	840	900

[a/] Source: 1990 Nebraska Farm Real Estate Market Survey.

MARKET CHARACTERISTICS IN 1989

Each year, survey reporters are asked to give their perceptions of market activity in their locality over the previous 12 months. Nearly half of the respondents to this year's survey saw a greater number of tracts sold during 1989 than in 1988 **(Table 3)**. The average percentage increase was 17 percent. Of the remainder of the respondents, about 3 out of every 4 saw no change in sales activity in 1989.

As for motives underlying the market activity, reporters perceived that estate settlement and retirement/health were the primary reasons for selling agricultural real estate **(Figure 7 and Table 4)**. Financial pressures were still cited as a reason for selling; but the incidence was far below that of previous years. In the two areas with the largest percent advances in values during 1989, the North and the Central Districts, the improved market for selling was reported with some frequency.

On the buyer side of the market, purchase for expansion was the primary motive **(Figure 7 and Table 5.)** This is reflective of the fact that active farmers remain the main buyer group. In most districts, investment was also noted with some frequency as a primary motive for purchase.

The survey reporters were also asked to comment on two institutional forces and the perceived impact on their local farm real estate market in 1989. The first was USDA's **Conservation Reserve Program** (CRP). Approximately 1.3 million acres of Nebraska's highly-erodible cropland have been signed up in the CRP program, which involves taking the land out of production for 10 years and establishing a permanent cover crop. Since as much as 25 percent of a county's cropland can be signed up in the CRP program, there could be some impact on both the transfer and the rental markets for cropland. However, the majority of reporters in the 1990 survey (74 percent) perceived no measurable impact of the CRP program on the farm real estate market in their area. Even in those areas of the state where CRP enrollment has been heavy, the market impact was perceived as being minimal.

Those who did see some effect reported a variety of impacts, but usually of an isolated nature in their local markets. Some saw the CRP contributing to higher bid values on the more marginal lands eligible for CRP enrollment, while others felt there was some greater buyer interest from nonfarmer investors in this type of land. Interestingly, others pointed out that farmer buyers were generally uninterested in CRP land or that land which could be eligible. Since their motive is usually to acquire land to add to their operating base, potential farmer buyers will apparently discount such land. Finally, several reporters who felt the CRP had some impact noted the tendency for some owners to enroll land in the CRP as an alternative to selling out at retirement. Thus, in certain instances, some portion of the land that would normally come onto the market would be retained by existing owners.

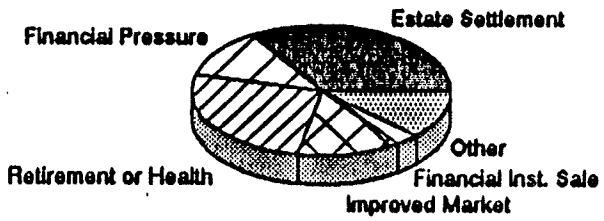
Table 3. Reporter Estimates of The Changes in The Number of Nebraska Farmland and Ranchland Tracts Sold in 1989 Compared with The Previous Year.[a/]

Item	The Number Of Tracts Sold In 1989:		
	Increased	Decreased	Remained the same
	Percent		
Proportion of Responses Reported.....	47	14	39
Average Percentage Change Reported[b/].....	+17	-20	

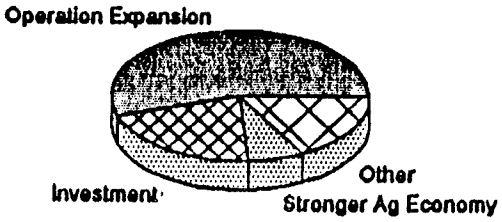
[a/] Source: 1990 Nebraska Farm Real Estate Market Survey.

[b/] Percentage change in sales activity in 1988 relative to previous 12-month period.

Figure 7. Reasons For Selling and Buying In Nebraska, 1989



Reasons for Selling



Reasons for Buying

Source: Nebraska Farm Real Estate Market Survey Series, IANR, UN-L

Table 4. Reasons Given By Reporters Why Land Was Sold In 1989, By Crop Reporting District In Nebraska.[a/]

Crop Reporting District	Reasons For Selling						
	Estate Settlement	Financial Pressures	Retirement or Health	Improved Market for Selling	Financial Institution Sales	Other	Total
	Percent						
Northwest.....	25	15	35	5	20	0	100
North.....	45	22	11	22	0	0	100
Northeast.....	29	21	29	13	0	8	100
Central.....	35	12	19	23	5	6	100
East.....	36	9	24	15	0	16	100
Southwest.....	15	15	35	10	0	25	100
South.....	37	0	32	11	5	15	100
Southeast.....	44	14	28	3	2	8	100
STATE.....	34	12	26	13	3	12	100

[a/] Source: 1990 Nebraska Farm Real Estate Market Survey.

Table 5. Reasons Given By Reporters Why Land Was Purchased In 1989, By Crop Reporting District In Nebraska.[a/]

Crop Reporting District	Reasons For Buying				
	Expansion of Operation	Investment	Stronger Ag Economy	Other	Total
	Percent				
Northwest.....	53	24	6	17	100
North.....	43	14	29	14	100
Northeast.....	52	28	0	20	100
Central.....	53	29	9	9	100
East.....	55	22	5	11	100
Southwest.....	65	6	18	11	100
South.....	50	25	13	12	100
Southeast.....	61	13	6	20	100
STATE.....	55	21	7	17	100

[a/] Source: 1990 Nebraska Farm Real Estate Market Survey.

The second institutional issue that reporters were querried about was Nebraska's new process of agricultural land assessment initiated in 1989. Prior to 1989, agricultural land in the state was assessed on the basis of an income (earnings) approach to value which resulted in land being assessed for tax purposes at about 70 percent of market value. Due to a Nebraska Supreme Court ruling mandating uniform assessment across all classes of real estate property, new legislation was passed requiring agricultural land to be assessed at full market value. The consequence was significant increases in assessed value on agricultural property across the state in 1989. Since tax dollar obligations would tend to increase by some fraction of the assessed value increase, one might suspect an impact on the agricultural land market.

When asked about the new tax assessment process about 44 percent of the reporters felt it did have some impact on their local land market in 1989. Property taxes, they commented, are burdensome and that concern over further increases in taxes was mounting. They often acknowledged that the potential investor buyer was factoring into his/her decision the possibility for future tax increases reducing rates of return to land ownership. In turn, some buyers would be bidding more cautiously. However, other reporters also noted that some buyers apparently have not considered potential tax changes in their decision to buy. As one reporter commented, "when two bidders want the same tract of land, tax impacts are totally disregarded".

CHARACTERISTICS OF ACTUAL SALES

Reporters in the 1990 UNL survey provided specific information on approximately 450 farmland sales that occurred in their localities during 1989. They were asked to give information only on those sales they would deem typical or representative of the market. Thus, it is believed this sample of sales is representative of the market universe.

As noted in **Table 6**, tract size averaged 245 acres, ranging from a 135 acre average in the East District to 935 acres in the North District. The latter represented primarily ranchland while the former was typically a high proportion of cropland. Reflecting the wide variation in land configurations across the state, average prices per acre also display a wide array. Sales during 1989 in the Northwest and North Districts averaged in the $200 per acre range while parcels sold in the East District averaged nearly $1,100 per acre.

Across the state, the majority of farmland sales in 1989 were of land tracts having no building improvements. In total, 71 percent of the reported sales were unimproved -- a pattern very similar across all areas of the state. This fact, in addition to the predominant reason for purchase being farm expansion, confirms that today's farm real estate market is one of parcels and not whole farms. An economically-viable whole-farm unit on the auction block today is the exception rather than the rule.

Table 6. Characteristics Of Actual Farmland Sales, By Crop Reporting District In Nebraska, 1989.[a/]

Crop Reporting District	Average Size of Tract	Percent Distribution			Average Price:	
		Dry Cropland	Irrigated Cropland	Pasture	Per Acre	Per Tract
	Acres	- - - - - - Percent - - - - - -			- - - Dollars - - -	
Northwest	567	15	14	71	$ 180	$102,100
North	935	1	9	90	202	188,900
Northeast	150	69	15	16	874	131,100
Central	390	3	30	67	526	205,100
East	135	49	34	17	1,089	147,000
Southwest	366	31	25	44	362	132,500
South	182	33	25	42	676	123,000
Southeast	167	51	17	32	711	118,700
STATE	245	28	24	48	594	145,500

[a/] Source: 450 sales reported in the 1990 Nebraska Farm Real Estate Market Survey.

Table 7. Types of Financing Associated With Actual Farmland Sales Occurring in Nebraska During Calendar Years 1987, 1988, and 1989.[1/]

Type of Financing	Reported Farmland Sales In:		
	1987	1988	1989
	- - - - - Percent - - - - -		
Cash Sale (no debt incurred)	53	45	42
Mortgage	41	43	47
Seller Contract for Deed	5	9	10
Other	1	3	1
Total	100	100	100

[1/] Source: Based on actual sales reported for each of the years in The Nebraska Farm Real Estate Market Survey.

In most instances, survey reporters were aware of the financing associated with the reported sales. Of the sales occurring in 1989, 42 percent were reportedly cash sales in which no debt was incurred, while nearly half, 47 percent, involved mortgage financing **(Table 7)**. Over the past three years, the incidence of cash sales has gradually decreased while transfers involving debt financing have grown in relative significance. As the agricultural economy has recovered, both the ability and the willingness to enter into long term debt obligation has increased. However, caution is still apparent.
Even when debt financing occurs, it is accompanied by substantial downpayments and shorter term repayment schedules. It should also be recognized that even though the incidence of cash sales was down somewhat in 1989, the fact that more than 4 out of every 10 of arms-length transfers were purchased outright with cash is important -- especially since such sales were typically in excess of $100,000. Clearly, equity capital remains a substantial force in the agricultural land market around the state. Moreover, it would imply that the financial position of recent buyers is quite solid and capable of enduring considerable economic adversity. Thus, in contrast to a decade earlier, today's pattern of agricultural land ownership is such that the likelihood of forced sale activity due to financial pressures is remote.

Who bought farm real estate in 1989? Of the reported transactions, 80 percent were purchased by active farmer buyers. Of the remaining buyers, most were local nonfarmers. This pattern was consistent across all regions of the state.

Characteristics of the 1989 purchases by active farmers appear in **Table 8**. Noteworthy is the proximity of the purchased tract to the residence of active farmer buyers. Clearly, the market radius of active farmer buyers is not very large. In most districts, a sizable majority of purchases by this buyer group will be within 5 miles of their residence and, presumably, their farming headquarters. The Southwest District, which shows some variation from this pattern, could be partially explained by the fact that active farmers in this area often will live "in town". Thus, while purchased tracts in the Southwest may frequently be some distance from buyer residence, the proximity to other land operated may be much closer.

Table 8. Characteristics of Actual Farmland Purchases By Active Farmer Buyers, By Crop Reporting District in Nebraska, 1989.[a/]

Crop Reporting District	Average Size of Tract	Average Price Per Acre	Average Price Per Tract	Percent With Bldgs.	Financing of Purchase: Cash Purchase	Financing of Purchase: Mortgage	Financing of Purchase: Contract for Deed	Financing of Purchase: Other	Location of Tract to Buyer Residence: Adjacent	Location of Tract to Buyer Residence: Less Than 5 Miles	Location of Tract to Buyer Residence: 5-9 Miles	Location of Tract to Buyer Residence: 10 or More Miles
	Acres	Dollars	Dollars	Percent								
Northwest.....	577	177	102,100	40	59	35	6	0	32	29	32	7
North[b/].....	--	--	--	--	--	--	--	--	--	--	--	--
Northeast.....	143	870	124,400	44	40	40	20	0	36	40	13	11
Central.....	256	759	194,300	27	44	44	12	0	15	51	15	19
East.....	133	1,081	143,800	26	26	61	12	1	30	47	13	10
Southwest.....	363	376	136,500	27	42	50	8	0	5	21	53	21
South.....	173	725	125,400	32	36	48	16	0	21	53	26	0
Southeast.....	164	734	120,400	38	47	30	12	1	35	39	12	14
STATE.....	218	647	141,046	31	39	48	12	1	27	43	18	12

[a/] Source: Based on over 355 transactions reported in the 1990 Nebraska Farm Real Estate Market Survey.

[b/] Insufficient number of reports.

1990 CASH RENTAL MARKET

According to UNL survey reporters, 1990 cash rental rates on cropland were stable to slightly higher than 1989 levels **(Table 9)**. Throughout most of the state, 1990 average per acre rates for dryland cropland were similar to 1989 levels. While reporters commented that demand was keen for cropland, prospective tenants apparently were hesitant to further bid up the cash rates in the face of severe moisture deficits going into the 1990 crop year.

As for 1990 cash rental rates on irrigated cropland, the observed changes showed considerable regional variation. For example, per acre rates on center pivot land rose considerably in the North, Southwest, and South Districts, exceeding or approaching previous historic highs in those regions **(Appendix Table 5)**. In contrast, rates on irrigated land in some of the other districts experienced only marginal adjustments for the 1990 crop year, although here also the per acre rates were frequently near their historical highs.

The fact that irrigated cropland rental rates have climbed to historic highs in the past few years, no doubt, reflects the influence of the federal farm program. Nebraska's irrigated cropland is devoted heavily to corn production. As a consequence, the program base acreage and established yield levels will tend to be relatively high. Prospective tenants have tended to bid the associated benefits of farm program participation into the cash rental rates.

The most dramatic changes in cash rental rates in 1990 were in pasture rents, particularly those on an animal-unit-month (AUM) basis. In several of the major range areas of Nebraska, demand for forage has been keen, and average AUM rates rose sharply for 1990. In the North, Central, and Southwest Districts, average 1990 rates were in the $17 range, with reported cases frequently exceeding $20 per AUM. Moreover, in the months subsequent to the February 1, 1990 survey, negotiated rates have apparently gone even higher as demand for remaining rangeland intensified. A combination of reduced forage production due to dry weather and good livestock prices have driven pasture rents to record levels. Of course, the rental rate increases in these regions track closely with the reported percentage changes in value discussed earlier.

Overall, the cash rental market of recent years has been one of spirited activity. And while improved farm and ranch income levels have contributed to higher cash rental rates, some of the upward movement may also reflect changing producer attitudes as a result of the farm financial crises of the mid-1980s. Land leasing has some distinct economic advantages over land purchase with heavy debt financing. Producers appear to be factoring these considerations into their decision framework, and frequently opting to control a viable-sized land base largely through leasing. This is reflected in the 1987 Census of Agriculture, which indicated 47 percent of Nebraska's agricultural land is

Table 9. Reported Cash Rental Rates For Various Types of Nebraska Farmland - 1990 Rates And Comparison with Year Earlier Levels.[a/]

Type of Land	Crop Reporting District							
	North-west	North	North-east	Central	East	South-west	South	South-east
	Dollars Per Acre							
Dryland Cropland:								
Average 1990 Rate.....	b/	b/	65	44	72	31	41	54
Range of 1990 Rates...	b/	b/	40-85	35-65	55-90	25-40	35-50	35-75
Average 1989 Rate.....	b/	b/	65	42	70	26	43	52
Gravity Irrigated Cropland:								
Average 1990 Rate.....	74	88	99	113	113	96	106	104
Range of 1990 Rates...	50-100	75-125	75-130	90-130	85-125	60-105	90-125	90-125
Average 1989 Rate.....	b/	87	102	111	115	88	106	97
Center Pivot Irrigated Cropland:								
Average 1990 Rate.....	77	97	106	99	114	91	104	108
Range of 1990 Rates...	50-150	90-100	85-135	85-115	95-130	75-100	85-115	90-125
Average 1989 Rate.....	b/	88	99	98	110	81	101	100
Dryland Alfalfa:								
Average 1990 Rate.....	b/	b/	62	49	67	30	51	48
Range of 1990 Rates...	b/	b/	50-90	35-70	40-100	25-35	40-60	20-60
Average 1989 Rate.....	b/	b/	59	41	64	b/	56	48
Irrigated Alfalfa:								
Average 1990 Rate.....	b/	b/	96	95	93	90	111	b/
Range of 1990 Rates...	b/	b/	75-125	85-125	75-110	75-100	95-125	b/
Average 1989 Rate.....	b/	b/	89	88	92	b/	100	b/
Other Hayland:								
Average 1990 Rate.....	b/	29	b/	39	44	34	b/	38
Range of 1990 Rates...	b/	20-35	b/	30-50	30-70	25-50	b/	30-50
Average 1989 Rate.....	b/	25	b/	30	44	b/	b/	34
Pastureland (Per-Acre):								
Average 1990 Rate.....	5	9	25	17	25	9	15	20
Range of 1990 Rates...	4-7	4-11	15-40	10-22	15-40	5-15	13-20	15-25
Average 1989 Rate.....	5	7	23	15	23	7	15	19
	Dollars Per Animal Unit/Mo.							
Average 1990 Rate.....	12.90	16.75	15.55	17.80	15.70	17.40	15.00	15.35
Range of 1990 Rates...	11-15	10-25	13-20	13-22	10-20	14-22	12-25	12-20
Average 1989 Rate.....	11.35	14.50	14.00	14.50	13.25	12.80	14.20	13.70

a/ Reporters' estimated cash rental rates from the annual Nebraska Farm Real Estate Market Surveys.

b/ Insufficient number of reports.

leased, with the level in many countries exceeding 50 percent **(Appendix Figure 3)**. Only five years earlier, the 1982 Census of Agriculture determined that Nebraska's farm operators were leasing just 42 percent of the land in farms.

RETURNS TO FARMLAND OWNERSHIP

Reporters in both the 1989 and 1990 UNL farm real estate surveys were asked to estimate the average rate of return (percentage) that landowners in their area could expect given current real estate values. Real estate appraisers refer to this as the market-derived capitalization rate (ie., a rate of return estimated on comparable properties which is then used to divide the estimated net income of the subject property to arrive at its estimated property value). The procedure, called the income capitalization approach, is one of three basic appraisal approaches to estimating market value.

Realizing that percentage rates of return will tend to vary by type of land, reporters were asked to give typical rates in their area for irrigated land, dryland cropland, and grassland. As noted in **Table 10**, expected rates of return in both 1989 and 1990 were generally highest for irrigated land and lowest on rangeland. For the state, 1990 averages for irrigated land, dryland cropland, and grassland were in the range of 7 percent, 6 percent, and 5 percent respectively.

Regional differences were evident, particularly in the margin of difference between irrigated land and dryland cropland. Usually, that margin was largest in those areas of the state where rainfall deficits tend to be highest.

Compared with 1989, 1990 rates of return in most regions were somewhat lower. As land values have continued to appreciate in recent years, the percentage rates of return have subsided. This parallels what stock market analysts refer to as a rising price/earnings ratio which may indicate a more futuristic perspective on increased earnings and growth of asset value. Alternatively, a higher price/earnings ratio may be reflecting noneconomic variables being bid into value.

Following a similar analysis to that of earlier years, 1990 reporter estimates of land values and cash rental rates were incorporated into a sub-state analysis of returns for specific land types **(Table 11)**. On the basis of representative costs incurred by landowners under cash leasing, an estimate of per acre net returns is derived.

Of the land types studied, current net returns based on 1990 values ranged from 3.9 percent on gravity irrigated cropland in Eastern Nebraska to 6.1 percent on Northeast Nebraska dryland cropland. Irrigated land tended to have the lower percentage net returns after accounting for the owner's fixed costs of the associated irrigation investment. Such costs can be substantial--annual depreciation alone can easily run $15 to $25 per acre depending upon the type of irrigation investment involved.

Table 10. Estimated Annual Rates Of Return By Type Of Land And Crop Reporting District, 1989 and 1990.[a/][b/]

Crop Reporting District	Average Annual Rate Of Return On:					
	Irrigated Land		Dryland Cropland		Grassland	
	1989	1990	1989	1990	1989	1990
	Percent					
Northwest.....	8.7	8.3	6.7	6.2	5.2	4.0
North.....	8.8	9.3	6.0	6.3	5.9	5.8
Northeast.....	8.2	6.9	6.9	5.9	5.4	4.6
Central.....	7.3	6.8	7.2	6.4	5.2	4.9
East.....	6.7	6.7	6.5	5.9	4.7	5.0
Southwest.....	6.9	6.3	5.8	4.7	4.1	4.5
South.....	7.1	6.3	6.7	6.1	5.4	5.4
Southeast.....	6.5	6.0	6.3	6.3	5.3	5.0
STATE AVERAGE....	7.2	7.1	6.5	6.1	5.1	4.9

[a/] Source: 1989 and 1990 Nebraska Farm Real Estate Market Survey.

[b/] Reporter estimates of annual net rates of return given current values. Appraisers refer to this as the market-derived capitalized rate.

This is not to suggest that given high fixed costs, a low percentage rate of return necessarily follows. Quite the contrary, a capital investment, such as irrigation, is usually done to increase the owner's rate of return. What the findings of this analysis of returns may be showing is that present owners of irrigated land may not be fully accounting for these irrigation investment costs, and thus are generally accepting lower cash rents that they would otherwise do.

With the exception of Sandhills rangeland, the 1990 percentage rates of return were lower than those of 1989. The combination of higher land values and owner expenses with relatively stable cash rental rates resulted in this decrease. For rangeland, the recent increases in negotiated cash rental rates more than outpaced rangeland value changes, pushing the 1990 rate of return up slightly from a year earlier.

As has been observed over many years, the annual rate of return to agricultural land investments is relatively modest. From an investment standpoint, other alternatives, with as much or even more earnings stability andliquidity, are available which can yield considerably higher annual returns. This does not necessarily infer, however, that current buyers are economically irrational in their decisions. As previously noted, the bulk of buyers are active farmers who are acquiring land to add to an existing base. That "add-on" tract may well represent an important asset complement to the existing operation, such that the rate of return to the buyer may be much higher than the perceived level using the cash rent analysis presented previously. Moreover, one must recognize that the nature of the agricultural land market is one of low rates of ownership turnover and a buyer viewpoint weighted toward the long-run. In short, this is personified by the farmer buyer who bids aggressively for a tract of land close to his/her existing operation knowing that the next opportunity for purchasing such property may be several years hence. Consequently, the current bid values may reflect an economically rational price premium reflecting the limited opportunity to purchase farmland with desirable locational characteristics.

The rates of return presented in **Table 11** also carry important implications regarding debt financing. A fundamental principle of sound debt management is to use debt capital for asset control only if the percentage rate of return to that asset matches or exceeds the interest rate on the borrowed capital. If it does not, the financial leveraging associated with using debt capital will work against the borrower in a magnified way. At best, this would be reducing the rate of return to owner equity and, at worst, consuming all annual returns and actually cutting into the owner's equity. At today's interest rate levels, the current average rates of return show in **Table 11** would not justify land purchase using heavy amounts of debt capital. Debt leveraging would be counter-productive for the buyer. Even if the buyer were willing to forgo all of his/her returns to own equity in the land purchase, the debt-servicing potential of the tract is still quite limited.

Consider for example, a purchase of a dryland cropland tract in Eastern Nebraska. The annual net returns of about $55 per acre would service an 11-percent, 15-year amortized loan of $399 per acre. This is just 41 percent of the current purchase price. In other words, a sizable downpayment (equivalent to 59 percent of purchase price) would be necessary if debt servicing was not to be subsidized from another financial source. Of course, this scenario does even not consider year-to-year variability in returns to land which can further compound the debt servicing problems on agricultural real estate investments.

In summary, continued appreciation of agricultural land values during 1989 has led to some erosion of annual rates of return on investment. Even though value appreciation can represent investment return (capital gains captured at time of sale) the debt servicing potential of annual earnings has not kept pace. Since recent land purchase activity appears to be heavily financed with equity capital, this is not to be seen as an impending financial crisis. Nevertheless, a note of caution is in order whenever a production asset such as agricultural land shows a drop in the rate of earnings.

EXPECTATIONS FOR THE CURRENT YEAR

Each year, survey reporters are asked to give their expectations for that year in terms of market activity, land value changes, etc. As this year's reporters looked ahead to 1990, the majority, 62 percent, saw the number of tracts offered for sale to be similar to the 1989 rate. Of the 23 percent who expected greater market activity, the average increase expected was 11 percent. The remainder who anticipated decreased activity in 1990 saw an average decrease of 18 percent.

As for changes in value of farm real estate, nearly half, 48 percent,expected stable values throughout 1990. Nearly 43 percent foresaw further increases averaging 9 percent for the year. A minority of reporters, 9 percent, expected land value declines in their local markets during 1990 averaging 9 percent. This pattern of expectations did not vary widely across regions of the state.

Many reporters commented that weather conditions would dictate much of the land market dynamics during 1990, especially in those areas where serious moisture shortfalls existed at the beginning of the year. But other uncertainties were also mentioned. New farm program legislation was frequently noted as a major influential factor which will bear heavily on future agricultural income and, hence, land values. Future taxation policies, including Nebraska's agricultural land assessment procedure for property taxes and possible reinstatement of capital gains provisions in the federal tax code were also noted as important variables in the future.

Table 11. Estimating Of Typical Net Returns For Selected Land Types In Nebraska Using Cash Rental Rates, 1990[a/]

Row	Item	Northeast NE Dryland Cropland	Northeast NE Sprinkler Irrigated Cropland[b/]	Eastern NE Dryland Cropland	Eastern NE Gravity Irrigated Cropland (from well)	Southeast NE Dryland Cropland
1.	Current purchase price per acre	$800.00	$1,250.00	$975.00	$1,575.00	$725.00
2.	Annual cash rent (gross).....	$65.00	$105.00	$75.00	$115.00	$55.00
3.	Gross Rent-to-value ratio.....	8.1%	8.4%	7.7%	7.3%	7.6%
	Annual owner expenses (per acre)					
4.	Real Estate Taxes[c/]	$ 12.00	$ 16.50	$ 14.65	$ 23.65	$ 10.90
5.	Irrigation costs[d/]	___	$ 27.00	___	$ 22.00	
6.	Incidential costs.....	$ 4.00	$ 6.25	$ 4.90	$ 7.90	$ 3.65
7.	Total owner costs.....	$ 16.00	$ 49.75	$ 19.55	$ 53.55	$ 14.55
8.	Annual net returns per acre (before income taxes).....	$ 49.00	$ 55.25	$ 55.45	$ 61.45	$ 40.45
9.	Percentage rate of return to investment(before income taxes).....	6.1%	4.4%	5.7%	3.9%	5.6%
10.	Mortgage amount per acre which could be serviced by the net returns assuming:					
	15-year amortized loan at 11 percent interest	$352.30	$397.30	$398.70	$411.90	$290.90
	% of purchase price.....	44%	32%	41%	28%	40%
	30-year amortized loan at 11 percent interest.....	$426.10	$480.40	$482.10	$534.30	$351.70
	% of purchase price.....	53%	38%	49%	34%	49.%

(See footnotes at end of table.)

Table 11 Continued.

Row	Item	Southwest NE Dryland Cropland	Southwest NE Sprinkler Irrigated Cropland[b]	South Central NE Gravity Irrigated Cropland	Northern NE Sprinkler Irrigated Cropland[b]	Northern NE Sandhills Rangeland
1.	Purchase price per acre.....	$450.00	$ 950.00	$1,250.00	$ 900.00	$135.00
2.	Annual cash rent (gross).....	$30.00	$90.00	$100.00	$ 90.00	$ 8.70
3.	Gross Rent-to-value ratio.....	6.7%	9.5%	8.0%	10.0%	6.5%
	Annual owner expenses (per acre)					
4.	Real Estate Taxes[c]...	$ 6.75	$12.00	$ 18.75	$ 11.25	$ 1.35
5.	Irrigation costs[d]....	—	$27.00	$ 22.00	$ 27.00 ~~76.00~~	—
6.	Incidential costs.....	$ 2.25	$ 4.75	$ 6.25	$ 4.50	$ .70
7.	Total owner costs.....	$ 9.00	$43.75	$47.00	$42.75	$ 2.05
8.	Annual net returns per acre (before income taxes).....	$21.00	$46.25	$53.00	$47.25	$ 6.70
9.	Percentage rate of return to investment (before income taxes)	4.7%	4.9%	4.2%	5.3%	5.0%
10.	Mortgage amount per acre which could be serviced by the net returns assuming:					
	15-year amortized loan at 11 percent interest	$151.00	$332.60		$339.80	$ 48.20
	% of purchase price.....	34%	35%		38%	36%
	30-year amortized loan at 11 percent interest.....	$182.60	$402.10	$460.80	$410.80	$ 58.30
	% of purchase price.....	41%	42%	37%	46%	43%

[a] Current purchase prices and cash rents based upon the 1989 Nebraska Farm Real Estate Market survey.
[b] Value of pivot assumed to be $150.00 per acre included in purchase price.
[c] Real estate taxes assumed to be 1.5 percent of purchase price for all cropland, and 1.0 percent of purchase price for all rangeland. For sprinkler irrigated land the value of the pivot is subtracted before taxes are calculated.
[d] Estimated fixed costs of depreciation and insurance on irrigation equipment, based upon Estimated Crop & Livestock Production Cost For Nebraska, 1990, Department of Agricultural Economics, UNL.

A P P E N D I X

Appendix Table 1. Farm Real Estate Values In Nebraska, USDA Historical Series, 1860-1990.[a/b]

Year	Number of Farms	Land in Farms	Value of Land & Buildings		
			Per Acre	Per Farm	Total Value
	Thousand	Million Acres	Dollars	Thousand Dollars	Million Dollars
1860	2.8	1.0	6	1.4	6
1870	12.3	2.1	12	2.0	24
1880	63.4	9.9	11	1.7	106
1890	113.6	21.6	19	3.5	402
1900	121.5	29.9	19	4.8	578
1910	129.7	38.6	47	14.0	1,813
1911	129.2	39.0	48	14.4	1,864
1912	128.8	39.2	49	14.9	1,919
1913	128.2	39.5	50	15.4	1,974
1914	127.5	39.8	51	15.9	2,027
1915	126.9	40.3	50	15.9	2,017
1916	126.3	40.9	51	16.5	2,084
1917	125.8	41.5	54	17.8	2,240
1918	125.2	41.8	62	20.7	2,591
1919	123.1	41.9	71	23.8	2,978
1920	124.6	42.2	88	29.8	3,712
1921	125.1	41.9	82	27.5	3,439
1922	137.1	41.9	71	21.7	2,974
1923	126.6	42.1	68	22.6	2,860
1924	127.3	41.8	63	20.7	2,635
1925	127.5	42.1	60	19.8	2,524
1926	128.2	42.5	60	19.9	2,552
1927	128.5	43.2	58	19.5	2,505
1928	128.6	44.0	57	19.5	2,508
1929	128.9	44.3	57	19.6	2,526
1930	129.3	44.6	56	19.3	2,495
1931	129.9	45.0	52	18.0	2,338
1932	130.8	45.8	44	15.4	2,015
1933	132.0	46.0	35	12.2	1,609
1934	133.2	46.4	35	12.2	1,625
1935	134.0	46.9	34	11.9	1,594
1936	131.2	46.7	34	12.1	1,587
1937	128.5	47.4	32	11.8	1,516
1938	125.8	47.4	30	11.3	1,421
1939	123.6	46.8	28	10.6	1,310
1940	121.1	47.4	24	9.4	1,138
1941	119.2	48.2	22	8.9	1,061
1942	116.9	48.2	24	9.9	1,157
1943	115.6	47.5	27	11.1	1,283
1944	113.7	47.9	33	13.9	1,580
1945	111.4	47.6	37	15.8	1,760
1946	111.3	47.4	42	17.9	1,992
1947	110.1	48.0	47	20.5	2,257
1948	109.0	47.3	56	24.3	2,649
1949	108.0	47.2	62	27.1	2,927
1950	107.3	47.2	58	25.5	2,735

Appendix Table 1 (continued)

Year	Number of Farms	Land in Farms	Value of Land & Buildings		
			Per Acre	Per Farm	Total Value
	Thousand	Million Acres	Dollars	Thousand Dollars	Million Dollars
1951	105.4	47.4	66	29.7	3,131
1952	103.9	47.5	72	32.9	3,417
1953	102.5	47.3	75	34.6	3,548
1954	100.8	47.6	70	33.0	3,329
1955	95.8	47.5	73	35.1	3,469
1956	96.7	47.6	73	35.9	3,472
1957	94.6	48.0	72	36.5	3,454
1958	92.5	48.0	79	41.0	3,791
1959	90.6	47.5	86	45.1	4,084
1960	88.4	48.0	89	48.3	4,269
1961	86.4	47.8	90	49.8	4,302
1962	84.3	48.0	95	54.1	4,558
1963	82.2	47.6	97	56.2	4,617
1964	80.1	47.7	105	62.5	5,009
1965	78.9	47.8	111	67.2	5,301
1966	77.5	47.5	120	73.6	5,704
1967	76.2	47.0	132	81.2	6,188
1968	74.9	46.5	143	88.8	6,653
1969	73.6	46.3	150	94.3	6,940
1970	72.3	46.0	154	97.9	7,076
1971	70.3	45.9	157	102.6	7,210
1972	69.4	45.8	171	113.0	7,838
1973	68.3	46.3	193	130.7	8,935
1974	67.4	45.8	246	167.0	11,258
1975	67.0	47.9	282	201.6	13,508
1976	67.0	47.9	363	259.2	17,366
1977	66.0	47.8	420	304.1	20,070
1978	66.0	47.8	412	298.5	19,702
1979	65.0	47.7	525	385.3	25,043
1980	65.0	47.7	635	466.0	30,290
1981	65.0	47.7	729	534.9	34,773
1982	63.0	47.5	730	550.4	34,675
1983	62.0	47.4	701	535.9	33,227
1984	60.0	47.2	645	507.4	30,444
1985	59.0	47.2	485	388.0	22,892
1986	59.0	47.2	416	332.8	19,635
1987	57.0	47.2	400	331.2	18,880
1988	56.0	47.2	457	385.2	21,570
1989	55.0	47.2	526	451.4	24,827
1990[b]	55.0	47.2	562	482.3	26,526

[a] Source: Farm Real Estate Historical Series Data: 1960-1970 and Farm Real Estate Market Developments Series, issued annually by the U.S. Department of Agriculture.

[b] Preliminary estimates.

Appendix Table 2. Deflated USDA Farmland Values For Nebraska And Percent Changes, 1930-1990[a/] [b/]

Year	USDA Average Value/Ac.	1st Quarter GNP Price Deflator (1977=100)	Deflated Average Value/Ac. (1977=100[c/])	Year-to-Year Change in Deflated Farmland Values[e/]
				Percent
1930	56	23.2	241.4	-
1931	52	21.1	246.4	2.1
1932	44	18.8	234.0	- 5.0
1933	35	18.3	191.3	-18.2
1934	35	20.0	175.0	- 8.5
1935	34	20.3	167.5	- 1.3
1936	34	20.4	166.7	- 0.5
1937	32	21.4	149.5	-10.3
1938	30	20.9	143.5	- 4 0
1939	28	20.8	134.6	- 6.2
1940	24	21.3	112.7	-16.3
1941	22	23.0	15.7	-15.1
1942	24	25.4	94.5	- 1.2
1943	27	26.6	101.5	7.4
1944	33	27.1	121.8	20.0
1945	37	27.8	133.1	9.3
1946	42	32.1	130.8	- 1.7
1947	47	36.3	129.5	- 1.0
1948	56	38.8	144.3	11.4
1949	62	38.5	161.0	11.6
1950	58	38.2	151.8	- 5.7
1951	66	41.5	159.0	5.4
1952	72	42.1	171.0	7.6
1953	75	43.0	174.4	2.0
1954	70	43.4	161.3	- 7.5
1955	73	44.1	165.5	2.6
1956	73	45.2	161.5	- 2.4
1957	72	47.1	152.9	- 5.3
1958	79	48.0	164.6	7.7
1959	86	49.0	175.5	6.6
1960	89	50.0	178.0	1.4
1961	90	50.4	178.6	0.3
1962	95	51.3	185.2	3.7
1963	97	52.2	185.8	0.3
1964	105	52.9	198.5	6.8

Appendix Table 2 (continued)

Year	USDA Average Value/Ac. (1977=100)	1st Quarter GNP Price Deflator (1977=100)	Deflated Average Value/Ac. (1977=100)[c/]	Year-to-Year Change in Index of Deflated Farmland Values[e/]
				Percent
1965	111	53.9	205.9	3.7
1966	120	55.3	217.0	5.4
1967	132	57.2	230.8	6.4
1968	143	59.4	240.7	4.3
1969	150	62.1	241.5	0.3
1970	154	65.7	234.4	-2.9
1971	157	69.0	225.3	-3.9
1972	171	72.1	237.2	5.3
1973	193	75.3	256.3	8.1
1974	246	80.9	304.1	18.7
1975	282	89.8	314.0	3.3
1976	363	95.1	381.7	21.6
1977	420	100.0	420.0	10.0
1978	412	106.1	388.3	-7.5
1979	525	115.9	453.0	16.7
1980	635	125.7	505.2	11.5
1981	729	138.9	524.8	3.9
1982	730	149.1	489.6	-6.7
1983	701	152.8	458.8	-6.3
1984	645	158.9	406.0	-11.5
1985	485	163.8	296.1	-27.1
1986	416	169.2	245.9	-16.9
1987	400	173.1	231.1	-6.0
1988	457	178.0	256.7	11.1
1989	526	185.6	283.4	10.4
1990[d/]	562	194.0	289.7	2.2

[a/] Revised from series reported in earlier reports.

[b/] Refers to year ending March 1 for years prior to 1976; year ending February 1 for years 1976-1981; year ending April 1 for years 1982-1985, year ending February 1 for 1986 - 1989 and years ending January 1, 1990.

[c/] Computed by dividing the average value per acre by the 1st Quarter GNP Price Deflator.

[d/] Preliminary estimate.

[e/] A positive value entry in this column represents a real increase in asset value for the year (e.e., the rate of land value appreciation exceeded the general rate of inflation). Conversely, a negative value entry represents a real decrease in asset value.

Appendix Table 3. Average Reported Value Of Nebraska Farmland For Different Types Of Land By Crop Reporting District, 1978-1990.[a/]

Type of Land & Year	Crop Reporting District								
	North-west	North	North-east	Central	East	South-west	South	South-east	STATE[c/]
	Dollars Per Acre								
Dryland Cropland (No Irrigation Potential)									
1978...	289	253	648	319	817	360	468	660	492
1979...	317	319	813	397	1061	387	541	808	602
1980...	347	340	920	471	1296	454	626	971	702
1981...	419	346	1009	519	1409	546	754	1060	778
1982...	411	336	966	502	1325	522	752	988	742
1983...	387	321	864	450	1204	469	664	939	681
1984...	379	300	779	416	1129	444	653	840	632
1985...	325	237	643	340	905	365	474	612	501
1986...	259	198	499	263	669	308	412	423	384
1987...	242	190	520	246	626	288	377	416	371
1988...	267	202	576	301	692	294	411	513	416
1989...	305	250	688	370	824	371	491	621	500
1990...	309	279	728	407	877	409	491	662	532
Dryland Cropland (Irrigation Potential)									
1978...	409	387	741	590	1128	471	873	953	757
1979...	449	514	930	708	1411	520	1102	1152	926
1980...	533	565	1132	767	1733	628	1282	1352	1107
1981...	680	533	1225	880	1785	733	1432	1402	1192
1982...	658	535	1097	833	1665	685	1411	1268	1108
1983...	563	462	975	680	1462	654	1175	1160	979
1984...	507	441	911	638	1349	631	1050	1069	905
1985...	425	340	746	486	1013	504	705	723	684
1986...	312	300	598	367	746	377	573	545	524
1987...	285	250	567	325	707	328	503	508	484
1988...	310	266	646	380	801	339	576	623	552
1989...	376	339	773	483	980	433	684	772	674
1990...	371	367	840	539	1,056	473	706	816	720
Grazing Land (Tillable)									
1978...	177	191	433	299	549	215	465	433	248
1979...	186	229	521	347	701	259	479	574	288
1980...	200	261	583	395	760	307	621	643	328
1981...	251	257	622	435	881	332	697	636	357
1982...	248	248	605	422	824	317	710	654	348
1983...	198	234	571	405	739	315	555	589	315
1984...	187	233	500	325	661	285	519	521	289
1985...	146	180	392	259	510	205	339	357	218
1986...	101	135	275	166	366	146	250	241	154
1987...	77	99	267	135	336	115	187	236	124
1988...	80	107	294	168	361	100	208	292	134
1989...	104	150	362	217	418	130	253	341	173
1990...	102	185	381	270	459	153	296	360	197

Appendix Table 3 (continued)

Type of Land & Year	Crop Reporting District								
	Northwest	North	Northeast	Central	East	Southwest	South	Southeast	STATE[c/]
	Dollars Per Acre								
Grazing Land (Nontillable)									
1978...	115	126	308	216	384	119	268	315	153
1979...	134	156	340	267	486	148	309	417	186
1980...	143	169	394	304	549	190	346	473	209
1981...	164	182	418	339	620	217	398	474	230
1982...	168	183	412	329	584	195	418	472	227
1983...	151	169	375	283	511	181	339	460	205
1984...	134	152	350	248	455	168	328	384	184
1985...	94	115	258	192	341	118	236	243	135
1986...	71	85	179	131	262	84	158	178	98
1987...	60	71	166	106	238	68	120	173	83
1988...	58	76	189	128	270	75	152	220	91
1989...	71	109	242	183	310	101	209	266	123
1990...	83	134	272	225	340	113	233	298	146
Hayland									
1978...	232	266	370	372	477	231	298	371	281
1979...	287	308	436	397	593	281	345	509	332
1980...	301	338	506	441	699	349	402	554	369
1981...	323	331	558	482	738	368	417	532	375
1982...	328	334	544	472	714	344	445	557	375
1983...	290	286	509	408	658	344	375	496	331
1984...	283	247	497	295	568	329	369	463	296
1985...	261	206	332	273	470	250	258	311	241
1986...	190	154	233	230	335	182	190	219	179
1987...	160	119	188	195	271	148	175	201	144
1988...	144	130	238	230	317	178	202	245	159
1989...	194	183	295	275	382	220	268	291	210
1990...	217	218	326	328	405	245	278	328	243
Gravity Irrigated Cropland									
1978...	1246	796	1030	1545	1624	1134	1412	1404	1410
1979...	1300	964	1289	1705	1910	1197	1746	1772	1638
1980...	1369	1020	1547	1976	2317	1329	2046	2026	1906
1981...	1555	1054	1781	2088	2403	1493	2230	2026	2030
1982...	1580	1033	1771	2053	2269	1598	2254	1924	1994
1983...	1361	1000	1430	1798	1969	1412	1872	1854	1737
1984...	1269	1020	1429	1613	1838	1250	1762	1639	1601
1985...	1042	817	1102	1304	1329	1010	1283	1171	1214
1986...	754	612	900	940	975	867	963	957	920
1987...	650	567	775	802	959	718	863	843	826
1988...	668	691	862	948	1,151	740	994	956	947
1989...	815	900	1,100	1,210	1,462	841	1,232	1,170	1,182
1990...	841	900	1,186	1,413	1,513	895	1,390	1,285	1,287

Appendix Table 3 (continued)

Type of Land & Year	Crop Reporting District: Northwest	North	Northeast	Central	East	Southwest	South	Southeast	STATE[c/]
	Dollars Per Acre								
Center Pivot Irrigated Cropland[b/]									
1978...	771	678	956	877	1484	813	1023	1286	947
1979...	915	770	1164	1076	1690	895	1291	1590	1114
1980...	894	886	1372	1223	2043	971	1535	1795	1272
1981...	973	816	1456	1312	2110	1105	1732	1900	1341
1982...	989	810	1332	1270	2010	1123	1681	1748	1293
1983...	847	769	1217	1016	1727	926	1391	1643	1130
1984...	809	698	1130	969	1655	827	1350	1465	1049
1985...	691	581	875	850	1243	691	1055	1020	833
1986...	496	400	700	628	970	558	788	788	634
1987...	417	396	703	541	888	487	665	723	580
1988...	446	441	800	622	1,038	548	792	820	661
1989...	532	604	993	779	1,320	683	1,021	1,056	841
1990...	619	710	1,090	910	1,393	765	1,117	1,133	935
All Land Average[c/]									
1978...	279	201	674	608	1125	363	796	844	500[d/]
1979...	307	244	836	699	1376	405	970	1044	597[d/]
1980...	333	269	989	800	1670	472	1139	1215	695[d/]
1981...	397	271	1077	865	1748	538	1268	1260	749[d/]
1982...	396	269	1004	843	1643	527	1272	1173	720[d/]
1983...	343	248	890	734	1475	480	1057	1099	642[d/]
1984...	318	229	829	654	1341	442	990	989	588[d/]
1985...	258	180	664	528	1007	347	706	689	450[d/]
1986...	190	136	522	379	745	273	543	518	339[d/]
1987...	165	115	502	324	707	232	474	482	306[d/]
1988...	173	124	567	385	817	241	545	579	346[d/]
1989...	210	171	689	495	1,009	300	673	711	432[d/]
1990...	219	202	744	580	1,069	331	734	763	473[d/]

a/ February 1st estimates reported in the annual Nebraska Farm Real Estate Market Surveys.
b/ Pivot not included in per acre value.
c/ Weighted average.
d/ All land average for State may not conform to USDA series due to different acreage weighting.

Appendix Table 4. Average Reported Value Of Nebraska Farmland As Of February 1990 And Comparison With Peak Values For Different Types Of Land By Crop Reporting District.[a/] [b/]

Type of Land & Date	Crop Reporting District								
	Northwest	North	Northeast	Central	East	Southwest	South	Southeast	STATE[c/]
	-Dollars Per Acre-								
Dryland Cropland (No Irrigation Potential)									
Feb. 1990	309	279	728	407	877	409	491	662	532
Peak Yr. Value..	419	346	1,009	519	1,409	546	754	1,060	778
% of Peak.....	74%	81%	72%	78%	62%	75%	65%	62%	68%
Dryland Cropland (Irrigation Potential)									
Feb. 1990.....	371	367	840	539	1,056	473	706	816	720
Peak Yr. Value..	680	565	1,132	880	1,785	733	1,432	1,402	1,192
% of Peak.....	55%	65%	74%	61%	59%	65%	49%	58%	60%
Grazing Land (Tillable)									
Feb. 1990.....	102	185	381	270	459	153	296	360	197
Peak Yr. Value..	251	261	622	435	881	332	710	654	357
% of Peak.....	41%	71%	61%	62%	52%	46%	42%	55%	55%
Grazing Land (Nontillable)									
Feb. 1990.....	83	134	272	225	340	113	233	298	146
Peak Yr. Value..	168	183	418	339	620	217	418	474	230
% of Peak.....	49%	73%	65%	66%	55%	52%	56%	63%	63%
Hayland									
Feb. 1990.....	217	218	326	328	405	245	278	328	243
Peak Yr. Value..	328	338	558	482	738	368	445	557	375
% of Peak.....	66%	65%	58%	68%	55%	67%	62%	59%	65%
Gravity Irrigated Cropland									
Feb. 1990.....	841	900	1,186	1,413	1,513	895	1,390	1,285	1,287
Peak Yr. Value..	1,580	1,054	1,781	2,088	2,403	1,598	2,254	2,026	2,030
% of Peak.....	53%	85%	67%	68%	63%	56%	62%	63%	63%
Center Pivot Irrigated Cropland[c/]									
Feb. 1990.....	619	710	1,090	910	1,393	765	1,117	1,133	935
Peak Yr. Value..	989	886	1,456	1,312	2,110	1,123	1,732	1,900	1,341
% of Peak.....	63%	80%	75%	69%	66%	68%	64%	60%	70%
All Land Average[d/]									
Feb. 1990.....	219	202	744	580	1,069	331	734	763	473
Peak Yr. Value..	397	271	1,077	865	1,748	538	1,272	1,260	749
% of Peak.....	55%	75%	69%	67%	61%	62%	58%	61%	63%

[a/] Estimated values as reported in Farm Real Estate Market surveys conducted by Department of Agricultural Economics - UNL.
[b/] In most instances, peak values occurred in the 1980-81 period.
[c/] Pivot not included in per acre value.
[d/] Weighted average.

Appendix Table 5. Historical Cash Rental Rates of Nebraska Farmland For Different Types of Land by Crop Reporting District, 1981-1989[a/]

Type of Land & Year	Crop Reporting District							
	North-west	North	North-east	Central	East	South west	South	South-east
	Dollars Per Acre							
Dryland Cropland								
1981	b	b	60	43	68	35	38	55
1982	b	b	67	38	71	34	38	60
1983	b	b	63	43	66	25	41	57
1984	b	b	63	41	72	29	44	57
1985	b	b	55	38	65	26	40	50
1986	b	b	52	29	58	25	35	45
1987	b	b	55	29	58	23	35	45
1988	b	b	58	35	62	25	38	48
1989	b	b	65	42	70	26	43	52
1990	b	b	65	44	72	31	41	54
Gravity Irrigated Cropland								
1981	b	b	107	114	114	97	117	115
1982	100	96	b	119	116	97	115	115
1983	93	95	b	110	111	92	110	112
1984	110	95	100	115	113	89	115	113
1985	91	90	89	105	99	80	103	98
1986	78	73	80	90	97	77	93	88
1987	b	67	83	88	96	76	91	85
1988	b	70	94	94	103	76	95	93
1989	b	87	102	111	115	88	106	97
1990	74	88	99	113	113	96	106	104
Center Pivot Irrigated Cropland								
1981	b	71	117	102	118	91	126	119
1982	98	82	116	108	120	93	127	119
1983	90	86	101	100	114	83	117	116
1984	98	81	99	101	118	80	120	114
1985	b	69	93	90	104	81	111	96
1986	b	60	86	75	99	69	91	86
1987	b	62	83	77	97	66	82	86
1988	b	67	91	82	100	73	89	93
1989	b	88	99	98	110	81	101	100
1990	77	97	106	99	114	91	104	108
Dryland Alfalfa								
1981	b	b	53	47	56	31	45	45
1982	b	b	57	47	64	31	43	47
1983	b	b	56	43	64	32	43	50
1984	b	b	50	46	63	36	44	45
1985	b	b	50	44	59	28	42	40
1986	b	b	47	32	52	25	44	40
1987	b	b	41	32	53	b	41	37
1988	b	b	52	36	58	b	42	39
1989	b	b	59	41	64	b	56	48
1990	b	b	62	49	67	30	51	48

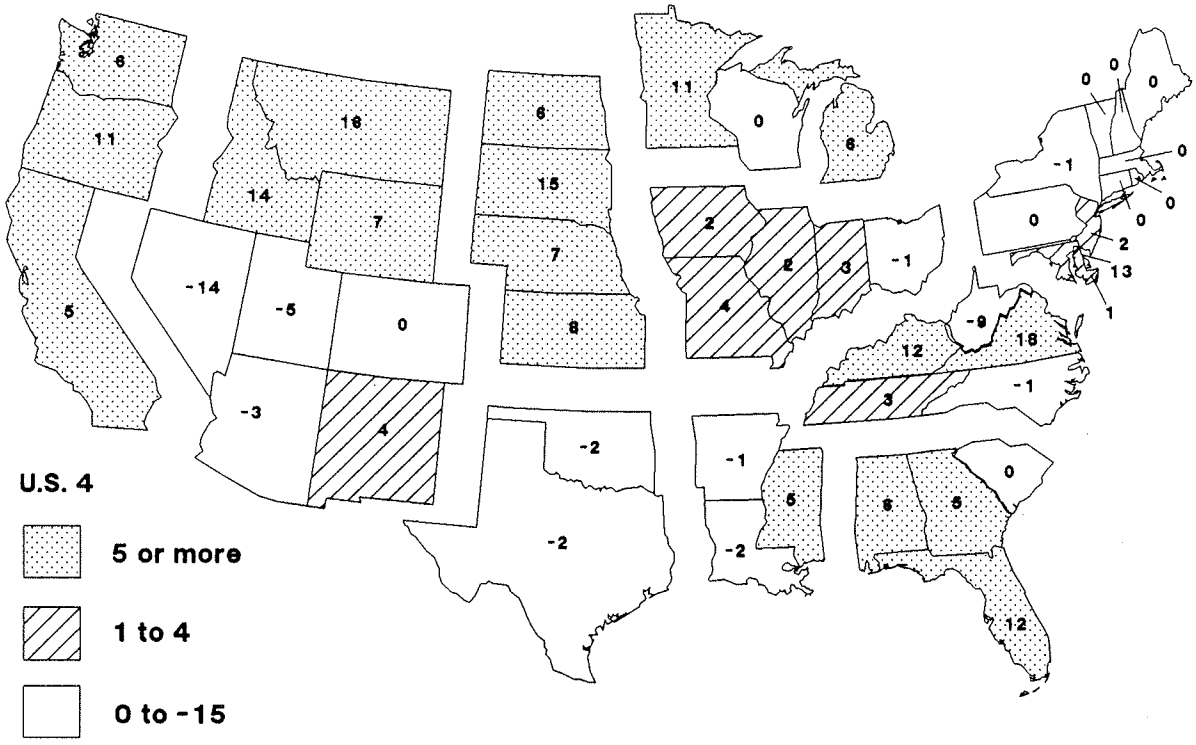
Appendix Table 5. (cont.)

Type of Land & Year	Crop Reporting District							
	Northwest	North	Northeast	Central	East	Southwest	South	Southeast
	Dollars Per Acre							
Irrigated Alfalfa								
1981	b	b	88	92	96	b	90	b
1982	b	b	75	87	100	56	90	b
1983	b	b	78	89	105	70	84	b
1984	b	b	80	83	96	68	84	b
1985	b	b	74	80	87	b	69	b
1986	b	b	68	58	69	b	68	b
1987	b	b	61	62	70	b	68	b
1988	b	b	72	66	78	b	68	b
1989	b	b	89	88	92	b	100	b
1990			96	95	93	90	111	b
Other Hayland								
1981	b	21	b	37	39	34	b	34
1982	b	18	b	30	b	b	b	34
1983	b	b	b	41	b	b	b	31
1984	b	b	b	32	44	29	b	36
1985	b	b	b	38	38	b	b	28
1986	b	b	b	26	29	b	b	26
1987	b	b	b	28	32	b	b	24
1988	b	b	b	26	31	b	b	31
1989	b	25	b	30	44	b	b	34
1990	b	29	b	39	44	34	b	38
Pastureland (Per-Acre)								
1981	6	8	33	16	28	10	14	26
1982	5	9	31	15	22	9	16	24
1983	6	9	26	16	21	9	14	24
1984	6	8	25	16	23	9	16	23
1985	5	6	20	13	23	7	14	20
1986	5	b	16	10	22	6	10	16
1987	4	4	18	10	20	5	11	15
1988	4	5	20	12	21	6	12	18
1989	5	7	23	15	23	7	15	19
1990	5	9	25	17	25	9	15	20
Pasture (Per Animal Unit/Mo.)[c/]								
1981	13.00	13.30	12.85	15.80	12.65	14.40	13.75	12.90
1982	13.00	12.50	15.25	15.95	13.85	16.00	15.00	14.95
1983	13.40	16.60	16.50	16.65	14.50	15.45	15.21	15.81
1984	13.20	15.90	15.30	16.55	14.10	15.25	14.75	15.60
1985	12.20	12.70	12.90	13.00	12.80	13.60	12.80	13.60
1986	10.70	10.50	11.00	10.60	10.10	10.40	10.70	11.30
1987	9.55	10.35	10.10	10.55	10.20	10.25	10.50	10.50
1988	9.50	11.00	10.90	11.30	13.00	12.70	12.65	13.50
1989	11.35	14.50	14.00	14.50	13.25	12.80	14.20	13.70
1990	12.90	16.75	15.55	17.80	15.70	17.40	15.00	15.35

[a/] Reporters' annual estimates of cash rental rates in the annual Nebraska Farm Real Estate Market Survey Series.
[b/] Insufficient number of reports.
[c/] Animal unit month (AUM) refers to sufficient forage capacity to sustain an animal unit (1,000 lb. cow or equivalent) for one month during the normal range season.

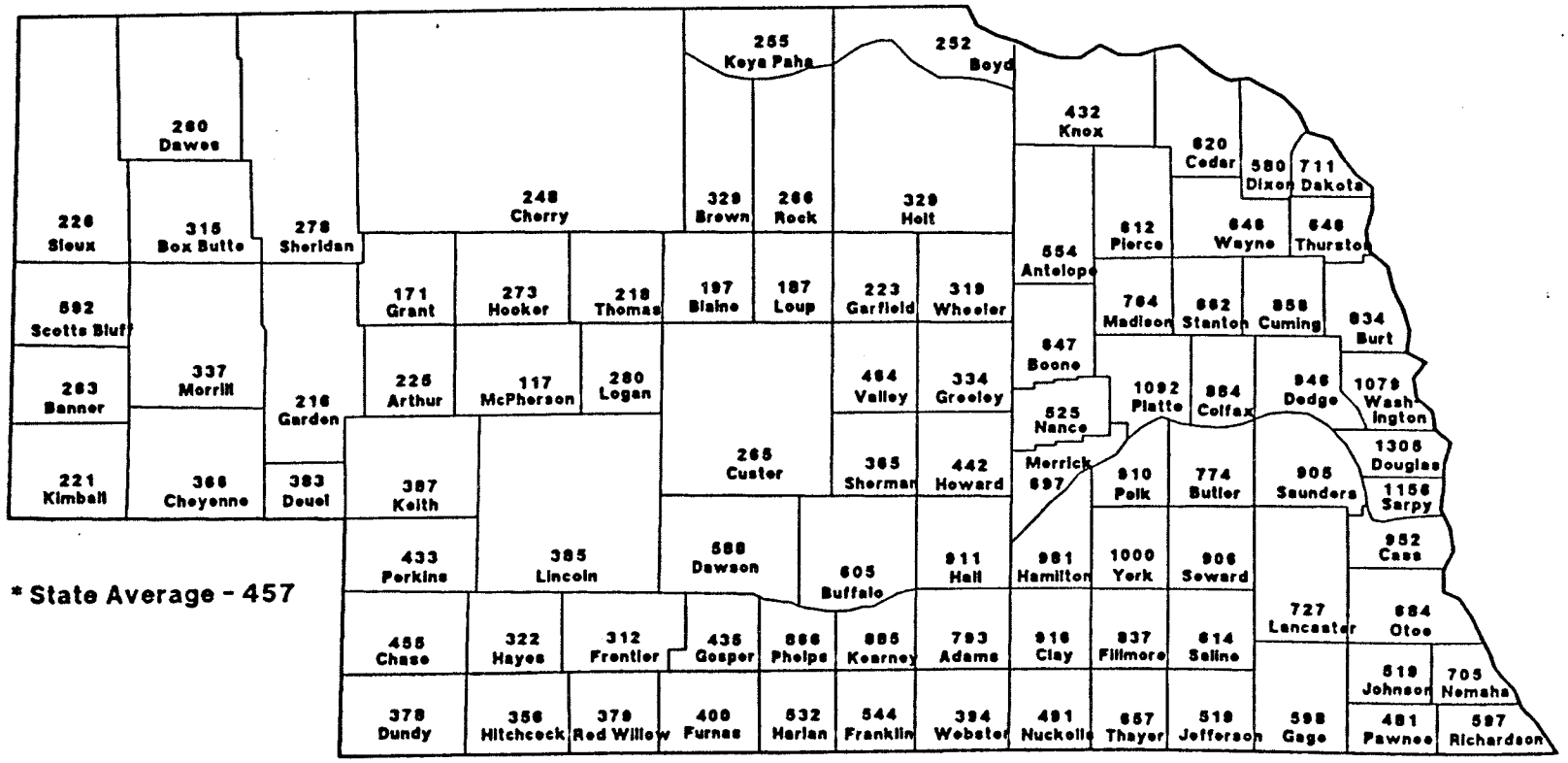
Appendix Figure 1:

Percent Change In Farmland Value Per Acre: February 1, 1989 to January 1, 1990



Source: Agricultural Resources: Agricultural Land Values, Situation and Outlook Summary, Economic Research Service, U.S. Department of Agriculture, April 20, 1990.

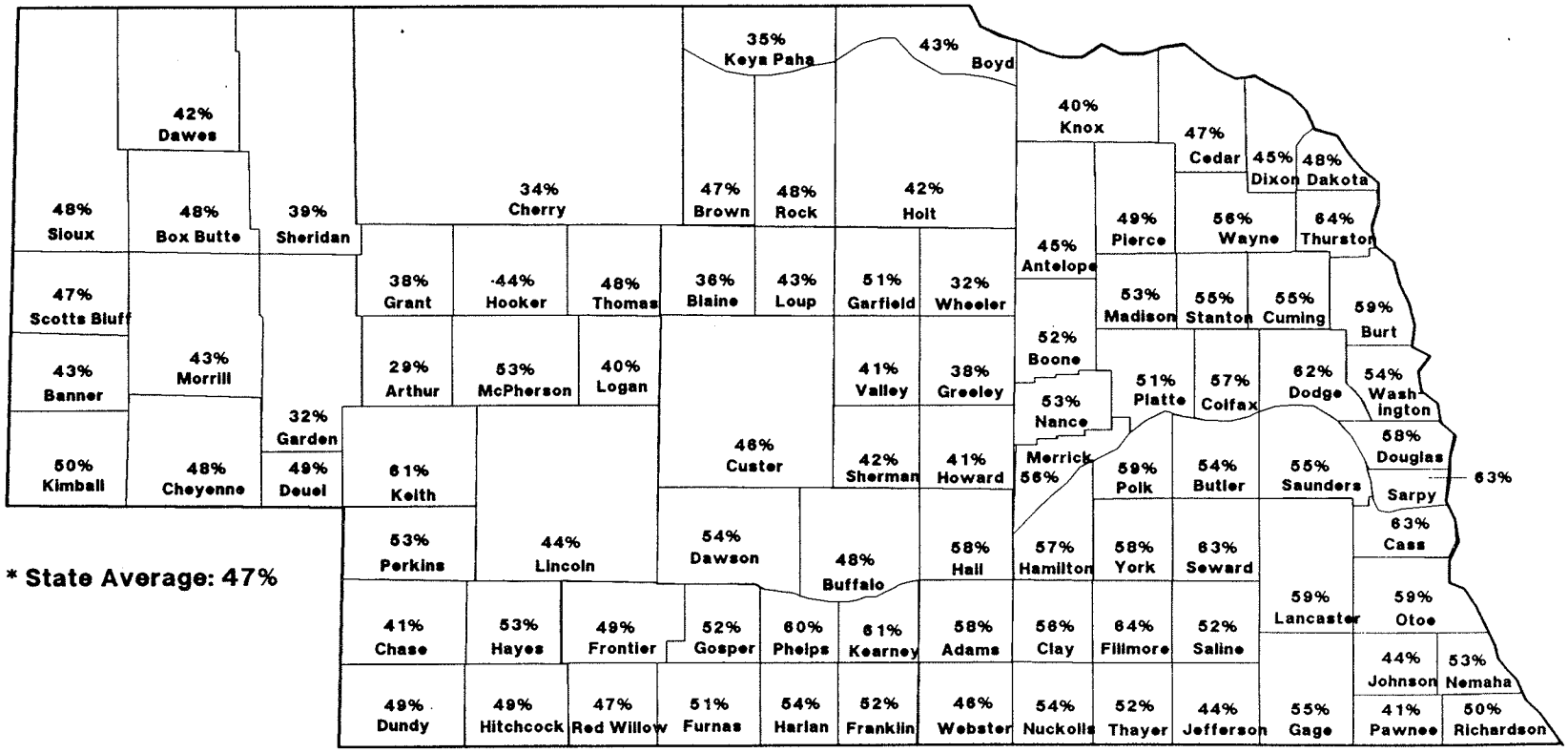
Appendix Figure 2. Average Value Per Acre By County - 1987



* State Average - 457

Source: 1987 Census of Agriculture
U.S. Department of Commerce

Appendix Figure 3. Percent of Land In Farms Leased By County - 1987



*** State Average: 47%**

Source: 1987 Census of Agriculture
U.S. Department of Commerce